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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/395,262	09/14/1999	ARLIN R. JONES	10990268-1	5734

22879 7590 03/12/2003
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FORT COLLINS, CO 80527-2400

EXAMINER

LEE, CHEUKFAN

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/395,262

Applicant(s)

Examiner

Chenfan Lee

Group Art Unit

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—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE(3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 1-6-03
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-22 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☒ Claim(s) 13-22 is/are allowed.
- ☒ Claim(s) 1 and 2 is/are rejected.
- ☒ Claim(s) 3-12 is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

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1. Claims 1-22 are pending. Claims 1, 13 and 18 are independent.
2. Applicant's arguments with respect to claims 1 and 2 have been considered but are moot in view of the new ground(s) of rejection.
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-2 are rejected under 35 U.S.C. 102(e) as being anticipated by Minagawa et al. (U.S. Patent No. 5,915,158).

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Regarding claim 1, Minagawa et al. discloses a method of using an image scanning device. The device comprises an automatic document feeder (ADF) and a copying machine (M in Fig. 1) having a scanning station (platen RX) with a scanning reference point (PX) at which the trailing edge of the document being transported should stop so that the document is scanned at the scanning station (RX). In the "switchback mode", a document (document Dn+1) is continuously forwarded (col. 10, lines 49-52 and lines 61-65). In this mode, in a case when the document (document Dn+1) passes past the reference scanning point (PX) onto the scanning station (RX), the document is stopped on the scanning station. The process of bring the document to a stop inherently includes decelerating and coming to a complete stop, even if the deceleration is only for a short period of time. Then the document is transported backward on the scanning station so that the trailing edge of the document is position at reference scanning point (PX). Because the document scanning station defined to be the platen (RX), it is understood that the scanning device is of the type having a linear sensor which starts scanning the document from the reference scanning point to the other end of the platen (RX) in the direction of the forward document transport. See Figs. 1, 2, 9's, 10 (steps IX, X, XI, VIII), col. 10, line 49 - col. 10, line 30).

Minagawa et al. reads on the claimed method in the following way: the continuous forwarding the document and then decelerating and stopping the document reads on the claimed decelerating an object from moving at a first substantially constant speed to a stop, the moving the document backward to the reference scanning point (PX) at which the image sensor starts

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scanning, in the case the document passes past the reference scanning point (PX), reads on the claimed causing relative movement between an object and an optical sensor, and the copying the document image after moving back the trailing edge of the document to the point (PX) reads on the claimed measuring reflected light from a first section of the object that moved past the optical sensor during decelerating the object. In the rejection, a first section of the object is the document.

Regarding claim 2, since the operation at step VIII of Fig. 10 is a copying operation, a set of data is generated from scanning the document image.

5. Claims 3-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 13-22 are allowed.

7. The following is an examiner's statement of reasons for allowance:

Claims 3 and 4 would be allowable because in Minagawa et al. the optical sensor (image sensor) is not moved in a first direction (forward direction) the document moves during scanning for a distance substantially equal to a sum of an acceleration distance of the object and a deceleration distance of the object, and the first section or the document is not moved past the

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image sensor at the first substantially constant speed in the first direction (forward direction).

During scanning, Minagawa et al. moves the image sensor from reference scanning point (PX) in the forward direction toward the other end of the platen (RX) opposite to the point (PX).

Claims 5 and 6 would be allowable because Minagawa et al. does not disclose moving the document in the backward direction, opposite the forward direction (left to right) the document moves through the scanning image sensor during scanning, for a distance substantially equal to a sum of an acceleration distance of the document and a deceleration distance of the document, and moving the first section of the document or the document past the image sensor at the constant speed from which the document moving speed is decelerated, in the backward direction. In Minagawa et al., the document is not moved through the image sensor during scanning; during scanning, the document is stationary while the image sensor moves as discussed for claim 1.

Claims 7-9 would be allowable because in the step of Minagawa et al. equivalent to the claimed step of causing relative movement, the image sensor is not moved, only the document is moved backward such that the trailing edge thereof is positioned at reference scanning point (PX).

Claims 10-12 would be allowable for the reason given for claims 7-9 .

Claims 13-17 are allowable over the prior art of record. The prior art does not teach a system for reducing artifacts from scanning an object or document as claimed in claim 13, comprising a moving mechanism, a scanning mechanism including an optical sensor, and a controller, the moving mechanism to selectively move the object at a first substantially constant

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speed during scanning, the scanning mechanism to selectively move the optical sensor at a second substantially constant speed during scanning, the optical sensor being configured for measuring reflected light from the object, the controller coupled to the moving mechanism and the scanning mechanism, the controller being configured to actuate the moving mechanism to selectively move the object and being configured to actuate the scanning mechanism to selectively move the optical sensor. Claims 14-17 depend upon claim 13.

Claims 18-22 are allowable over the prior art of record. Claims 18-22 recite limitations similar to those of claims 13-17, respectively, and thus are allowable for the reasons given for claims 13-17.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheukfan Lee at telephone number (703) 305-4867.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at telephone number (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC 20231

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or faxed to:

(703) 872-9314 (for formal communications intended for entry)

(703) 308-5397 (for informal or draft communications, such as proposed amendments to be discussed at an interview; please label such communications "PROPOSED" or "DRAFT")

or hand-carried to:

Crystal Park Two
2121 Crystal Drive
Arlington, VA
Sixth Floor (Receptionist)

C. L.
Feb. 27, 2003

A handwritten signature in cursive script, appearing to read "Cheuk fan lee".